

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number
WO 03/086863 A1

(51) International Patent Classification⁷: **B65B 1/36, 1/38**

(21) International Application Number: PCT/GB03/01447

(22) International Filing Date: 3 April 2003 (03.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0207769.1 4 April 2002 (04.04.2002) GB ✓

(71) Applicant (for all designated States except US): **GLAXO GROUP LIMITED** [GB/GB]; Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB6 0NN (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BAILEY, Thomas, William** [GB/GB]; Molins International Technology Centre, 13 Westwood Way, Westwood Business Park, Coventry, West Midlands CV4 8HS (GB). **BAKER, Jeremy, Keith** [GB/GB]; Molins International Technology

Centre, 13 Westwood Way, Westwood Business Park, Coventry, West Midlands CV4 8HS (GB). **SCHERZER, Raymond, Herbert** [US/US]; GlaxoSmithKline, Five Moore Drive, Research Triangle Park, Durham, NC 27709 (US). **SELF, Roger, Don** [GB/GB]; GlaxoSmithKline, Priory Street, Ware, Hertfordshire SG12 0DJ (GB).

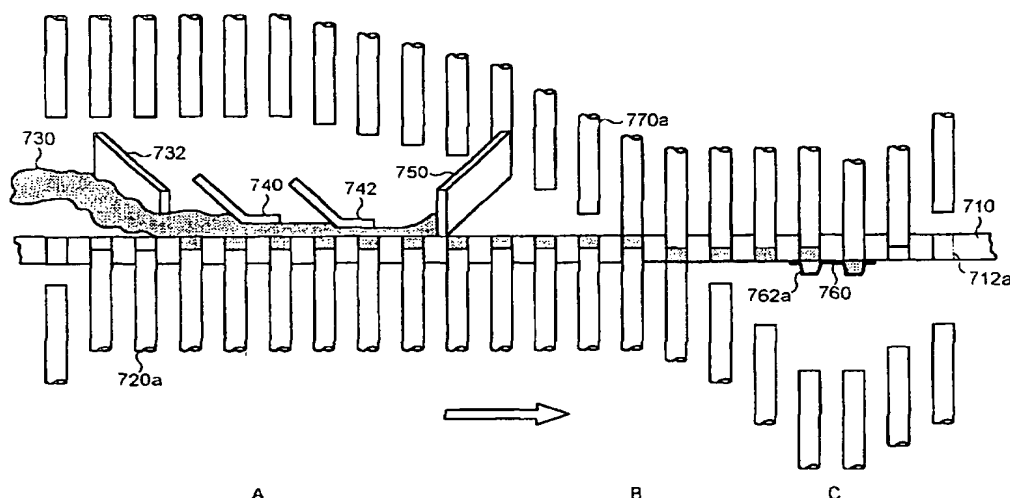
(74) Agent: **GIDDINGS, Peter, John**; GlaxoSmithKline, 980 Great West Road, Brentford, Middlesex TW8 9GS (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR LOADING A CONTAINER WITH A PRODUCT



(57) Abstract: There is provided a method of loading a container with a defined quantity of product (30). The method comprises closing off a perforation (12a, 12b) in a perforated plate (10); directing powder (30) into said closed-off perforation by the sweeping action of a first director blade (40) spaced from said perforated plate; and transferring the contents of the perforation to said container. The method is characterized by relative rotary motion of the perforated plate (10) and said first director blade (40). Suitable apparatus is also provided.

WO 03/086863 A1

PCT REQUEST

JNR/PG4774

Original (for SUBMISSION) - printed on 02.04.2003 01:50:28 PM

0	For receiving Office use only	
0-1	International Application No.	
0-2	International Filing Date	
0-3	Name of receiving Office and "PCT International Application"	
0-4	Form - PCT/RO/101 PCT Request	
0-4-1	Prepared using	PCT-EASY Version 2.92 (updated 01.10.2002)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	United Kingdom Patent Office (RO/GB)
0-7	Applicant's or agent's file reference	JNR/PG4774
I	Title of invention	METHOD AND APPARATUS FOR LOADING A CONTAINER WITH A PRODUCT
II	Applicant	
II-1	This person is:	applicant only
II-2	Applicant for	all designated States except US
II-4	Name	GLAXO GROUP LIMITED
II-5	Address:	Glaxo Wellcome House Berkeley Avenue Greenford, Middlesex UB6 0NN United Kingdom
II-6	State of nationality	GB
II-7	State of residence	GB
II-8	Telephone No.	020 8047 5000
II-9	Facsimile No.	020 8047 6894
III-1	Applicant and/or inventor	
III-1-1	This person is:	applicant and inventor
III-1-2	Applicant for	US only
III-1-4	Name (LAST, First)	BAILEY, Thomas, William
III-1-5	Address:	Molins International Technology Centre 13 Westwood Way Westwood Business Park Coventry, West Midlands CV4 8HS United Kingdom
III-1-6	State of nationality	GB
III-1-7	State of residence	GB

PCT REQUEST

JNR/PG4774

Original (for SUBMISSION) - printed on 02.04.2003 01:50:28 PM

III-2	Applicant and/or inventor	
III-2-1	This person is:	applicant and inventor
III-2-2	Applicant for	US only
III-2-4	Name (LAST, First)	BAKER, Jeremy, Keith
III-2-5	Address:	Molins International Technology Centre 13 Westwood Way Westwood Business Park Coventry, West Midlands CV4 8HS United Kingdom
III-2-6	State of nationality	GB
III-2-7	State of residence	GB
III-3	Applicant and/or inventor	
III-3-1	This person is:	applicant and inventor
III-3-2	Applicant for	US only
III-3-4	Name (LAST, First)	SCHERZER, Raymond, Herbert
III-3-5	Address:	GlaxoSmithKline Five Moore Drive Research Triangle Park Durham, NC 27709 United States of America
III-3-6	State of nationality	US
III-3-7	State of residence	US
III-4	Applicant and/or inventor	
III-4-1	This person is:	applicant and inventor
III-4-2	Applicant for	US only
III-4-4	Name (LAST, First)	SELF, Roger, Don
III-4-5	Address:	GlaxoSmithKline Priory Street Ware, Hertfordshire SG12 0DJ United Kingdom
III-4-6	State of nationality	GB
III-4-7	State of residence	GB
IV-1	Agent or common representative; or address for correspondence The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	GIDDINGS, Peter, John
IV-1-2	Address:	GlaxoSmithKline 980 Great West Road Brentford, Middlesex TW8 9GS United Kingdom
IV-1-3	Telephone No.	020 8047 4414
IV-1-4	Facsimile No.	020 8047 6894

PCT REQUEST

JNR/PG4774

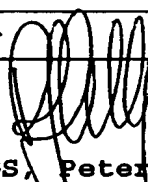
Original (for SUBMISSION) - printed on 02.04.2003 01:50:28 PM

V	Designation of States	
V-1	Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AP: GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT</p> <p>EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT</p> <p>EP: AT BE BG CH&LI CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR and any other State which is a Contracting State of the European Patent Convention and of the PCT</p> <p>OA: BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT</p>
V-2	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH&LI CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW</p>
V-5	Precautionary Designation Statement In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.	
V-6	Exclusion(s) from precautionary designations	NONE
VI-1	Priority claim of earlier national application	
VI-1-1	Filing date	04 April 2002 (04.04.2002)
VI-1-2	Number	0207769.1
VI-1-3	Country	GB
VII-1	International Searching Authority Chosen	European Patent Office (EPO) (ISA/EP)

PCT REQUEST

JNR/PG4774

Original (for SUBMISSION) - printed on 02.04.2003 01:50:28 PM

VIII	Declarations	Number of declarations	
VIII-1	Declaration as to the identity of the inventor	-	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	-	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	-	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	
IX	Check list	number of sheets	electronic file(s) attached
IX-1	Request (including declaration sheets)	5	-
IX-2	Description	22	-
IX-3	Claims	10	-
IX-4	Abstract	1	EZABST00.TXT
IX-5	Drawings	6	-
IX-7	TOTAL	44	
	Accompanying items	paper document(s) attached	electronic file(s) attached
IX-8	Fee calculation sheet	✓	-
IX-13	Priority document(s)	Item(s) VI-1	-
IX-17	PCT-EASY diskette	-	Diskette
IX-19	Figure of the drawings which should accompany the abstract	1a	
IX-20	Language of filing of the international application	English	
X-1	Signature of applicant, agent or common representative		
X-1-1	Name (LAST, First)	GIDDINGS, Peter, John	

FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/EP
10-6	Transmittal of search copy delayed until search fee is paid	

PCT REQUEST

JNR/PG4774

Original (for SUBMISSION) - printed on 02.04.2003 01:50:28 PM

FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
------	---	--

PCT (ANNEX - FEE CALCULATION SHEET)

JNR/PG4774

Original (for SUBMISSION) - printed on 02.04.2003 01:50:28 PM


(This sheet is not part of and does not count as a sheet of the international application)

0	For receiving Office use only		
0-1	International Application No.		
0-2	Date stamp of the receiving Office		
0-4	Form - PCT/RO/101 (Annex)		
0-4-1	PCT Fee Calculation Sheet Prepared using	PCT-EASY Version 2.92 (updated 01.10.2002)	
0-9	Applicant's or agent's file reference	JNR/PG4774	
2	Applicant	GLAXO GROUP LIMITED, et al.	
12	Calculation of prescribed fees	fee amount/multiplier	Total amounts (GBP)
12-1	Transmittal fee T	\Rightarrow	55
12-2-1	Search fee S	\Rightarrow	592
12-2-2	International search to be carried out by	EP	
12-3	International fee		
	Basic fee (first 30 sheets) b1	278	
12-4	Remaining sheets	14	
12-5	Additional amount (X)	6	
12-6	Total additional amount b2	84	
12-7	b1 + b2 = B	362	
12-8	Designation fees		
	Number of designations contained in international application	95	
12-9	Number of designation fees payable (maximum 5)	5	
12-10	Amount of designation fee (X)	60	
12-11	Total designation fees D	300	
12-12	PCT-EASY fee reduction R	- 86	
12-13	Total International fee (B+D-R) I	\Rightarrow	576
12-17	TOTAL FEES PAYABLE (T+S+I+P)	\Rightarrow	1,223
12-19	Mode of payment	authorization to charge deposit account	
12-20	Deposit account instructions		
	The receiving Office:	United Kingdom Patent Office (RO/GB)	
12-20-1	Authorization to charge the total fees indicated above.	<input checked="" type="checkbox"/>	
12-20-2	Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.	<input checked="" type="checkbox"/>	
12-21	Deposit account No.	D02029	
12-22	Date	02 April 2003 (02.04.2003)	

PCT (ANNEX - FEE CALCULATION SHEET)

JNR/PG4774

Original (for SUBMISSION) - printed on 02.04.2008 01:50:28 PM

12-23	Name and signature	GIDDINGS, Peter, John 
-------	--------------------	---

VALIDATION LOG AND REMARKS

13-1-1	Applicant remarks	Description, Claims and Abstract may contain Greek characters.
13-2-7	Validation messages Contents	Yellow! The power of attorney or a copy of the general power of attorney will need to be furnished unless all applicants sign the request form.
13-2-8	Validation messages Fees	Green? Please confirm that fee schedule utilized is the latest available
13-2-9	Validation messages Payment	Green? Please ensure that you have a valid deposit account with the receiving Office selected.
13-2-10	Validation messages Annotate	Green? All indications that can be made on the Request form are specifically provided for by the software. Please confirm validity of additional indication.